

USE OF THE GALVANIC CURRENT IN NASAL ALLERGY: VASOMOTOR RHINITIS (HAY FEVER): ZINC IONIZATION.

The intelligent application of any remedy is possible only after the establishment of correct and complete diagnosis. The presence of eosinophils in nasal secretions is conclusive for the diagnosis of vasomotor rhinitis. In the presence of a complicating infection the ratio of eosinophils to neutrophils is lowered, while in infections without coexisting vasomotor rhinitis the eosinophil count in the nasal secretions never exceeds one percent.

Once a true vasomotor rhinitis is established it is essential to determine any irritants that create the allergic symptoms. Cooke has formulated the view that in the non-seasonal type of allergic nasal disease the absorption of inhaled airborne irritating substances is the underlying cause in nearly all instances. An accurate diagnosis is more difficult when more than one irritant is present. A persistent sinusitis frequently is the responsible factor in symptoms simulating vasomotor rhinitis, the resulting confusing picture disappearing only after its recognition and treatment.

Zinc ionization is essentially a procedure to incorporate zinc ions into superficial layers of the nasal mucous membrane by use of a zinc solution and the galvanic current. Since zinc is to be deposited, the positive pole is used as the active pole, and acts on the 1% zinc sulphate solution used. The positive pole is used because zinc is the positive part of the compound, zinc sulphate.

Equipment necessary includes a smooth galvanic current, a zinc electrode to be connected to the positive pole, gauze or cotton packing to be saturated with the zinc sulphate solution, an indifferent pad electrode to be connected to the negative pole of the galvanic current; and, of course, the electrolyte, a 1% zinc sulphate solution.

The zinc electrode should be held firmly in place after it has been introduced into the nasal gauze pack saturated with the 1% zinc sulphate solution. It is connected to the positive pole as stated above. To complete the circuit, the large dispersive electrode (a 4" x 6" Kantborn Pad) thoroughly soaked is connected to the negative pole. This indifferent (or dispersive) electrode is placed at the nape of the neck, or forearm, or in any convenient spot.

The current is turned on GRADUALLY to comfortable tolerance (usually 10 to 15 milliamperes) for 10 to 15 minutes, and then it is GRADUALLY reduced to zero. Remember that the current should be built up slowly, and reduced slowly. The procedure can be carried out with the patient in either sitting or recumbent posture. The method is safe and effective if the technic, the most important part of which involves adequate packing of the nose and good electrical contacts, is properly carried out.

Objectively one notices that after ionization for vasomotor rhinitis the characteristic pallor of the nasal mucosa is modified in color in many patients. Where such a change does not take place after one treatment, it has been accepted as an indication to repeat the procedure after a reasonable period.

In a series of 83 cases which have been followed up, more than 60% responded promptly to the method. As a general rule the symptoms such as sneezing, rhinorrhea and impaired nasal breathing disappeared after the initial reaction subsided. Of the total number of patients treated, less than one-third required more than one ionization. The relief of symptoms has persisted for a long period, longer than has been obtained with any other method of treatment.

Conclusions:

1. Zinc ionization in non-seasonal types of nasal allergy is an effective and prolonged palliative.
2. Zinc ionization is not to be regarded as a panacea for allergic nasal conditions.
3. Intranasal zinc ionization is fundamentally an office procedure requiring no preliminary preparation and producing only a mild reaction for a brief period.
4. Results with the method depend upon correct application of technic in carefully selected cases.